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Cotton Fiber and Processing Test Results



CROP of

1977



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 7, 1977

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1977

Discussion of Test Results

The average Fibrograph 2.5% span length of medium staple samples tested from the Southwest through September 30 is the same as a year ago at this time, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons tested to date show the same uniformity and fineness properties as a year ago. Samples tested are stronger at zero gage fiber strength tests. Picker and card waste is lower than a year ago. Yarns spun from these samples are slightly stronger than a year ago. The average appearance index is lower. The average spinning potential yarn number is slightly higher.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1976,
USDA, AMS, Cotton Division, June 1977.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through September 30, 1977 ^{1/}

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.		
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Mpsi	G/tex	Skein str.		Appear- ance	Imperf- actions
				Inches			Pct.							
		No.												22s Carded Yarn
Short Staple: Southwest 1976 1977	14	.97	45	3.9	90	22	3.5	5.5	98	107	13		43	
	3	1.05	47	4.8	87	23	3.9	5.8	103	93	23		51	
Medium Staple: Southeast 1976 1977	24	1.12	46	4.5	88	23	3.5	5.4	111	96	22		61	
	19	1.06	46	4.2	81	22	3.1	6.0	105	101	18		58	
South Central 1976 1977	27	1.06	46	4.2	84	22	3.2	5.3	107	93	16		60	
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2		3	

^{1/} Based on a limited number of samples of modal quality

^{2/} Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Name & Code	Stple 32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct's		Spin. Potential		
				2.5% span	Unif		Zero	1/8" Gage			No	No		8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx			
SOUTHWEST																								
CENTRAL TEXAS																								
BARDWELL																								
1	MID	LT SP	32	30	0.95	46	4.3	90	21	LANKART 57	5.6	2.9	2	5	5.0	270	85	6.0	5.3	120	110	21	11	38
BRANDON																								
2	MID	LT SP	32	30	0.90	46	4.0	88	20	LANKART 611	6.0	3.0	2	4	4.8	288	93	7.0	6.0	120	120	22	13	35
DILLEY																								
2	SLM	LT SP	42	1/33	0.99	43	2.9	85	22	6.1	3.4	0	4	5.7	295	106	7.7	6.5	120	90	42	19	56	
3	SLM	LT SP	42	1/32	1.01	45	3.0	84	21	6.0	4.2	0	4	5.6	304	108	7.7	6.4	120	100	28	21	50	
ITASCA																								
1	MID		31	30	0.95	45	4.5	94	22	5.7	3.2	1	4	5.1	276	96	6.8	5.3	130	110	20	11	39	
LOTT																								
2	MID	LT SP	32	30	0.94	45	3.9	88	21	5.9	3.2	1	4	5.5	281	95	7.3	6.1	120	110	29	11	41	
3	MID	LT SP	32	30	0.97	46	4.0	86	21	5.9	4.2	2	4	5.1	288	95	7.1	5.8	120	110	25	20	41	
PALMER																								
1	SLM	LT SP	42	30	0.96	46	4.2	90	21	5.5	4.2	3	4	7.5	275	84	6.0	4.8	130	110	18	12	27	
WACO																								
2	MID	LT SP	32	32	1.00	46	4.2	97	23	5.4	2.6	2	4	5.3	311	108	7.1	5.9	130	110	15	8	52	
3	SLM	LT SP	42	32	1.01	46	3.9	96	22	5.4	4.9	2	4	6.0	284	99	6.8	5.7	120	110	22	16	31	

1/ Reduced from 32 because of bark
2/ Cotton stuck to processing rolls

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns										
Sample Number & Grade				Digital Fibrograph		Fiber Strength		Elon- gat'n		S.A. Non- Lint		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial
No	Name & Code	Stple	32s	2.5% span	Unif.	Mike	Zero	1/8" Gage	G/tex	Pct	Gr	Yel	No	Pct	22s or 27 tx	50s or 12 tx	Pct	22s or 27 tx	50s or 12 tx	No	22s or 27 tx	50s or 12 tx	No	
SOUTHEAST AREA																								
ALABAMA																								
BELLE MINA																								
1	SLM	41	32	1.00	46	5.0	88	25	6.2	4.0	2	4	5.9	92	27	5.4	3.8	100	80	18	14	39		
2	SLM LT SP	42	33	1.06	47	4.8	87	22	6.0	3.6	3	4	5.8	106	35	5.6	4.3	90	70	32	24	56		
HILLSBORO																								
1	SLM	41	34	1.09	48	4.6	85	23	6.4	4.1	2	4	5.6	112	37	5.9	4.7	90	80	18	21	57		
SOUTH CENTRAL AREA																								
ARKANSAS																								
DRIVER																								
1	SLM	41	35	1.10	46	4.7	88	24	5.8	4.7	1	3	5.8	106	34	5.7	4.0	100	70	16	12	54		
2	SLM	41	34	1.09	46	5.0	88	23	5.9	4.0	2	3	6.3	100	32	5.7	3.9	100	80	26	19	53		
DUMAS																								
1	SLM	41	35	1.12	48	5.2	86	23	5.9	2.8	2	3	5.3	109	36	5.8	4.0	110	100	12	10	56		
EUDORA																								
1	SLM	41	35	1.13	48	4.8	85	25	6.8	3.3	1	3	5.3	121	39	6.5	4.8	100	80	18	15	62		
HUGHES																								
1	SLM	41	35	1.12	47	5.0	89	24	5.6	1.9	2	3	5.3	104	33	5.9	4.4	90	70	24	18	57		
KEISER																								
2	SLM	41	34	1.09	43	4.0	85	20	6.2	3.5	2	3	5.4	101	33	6.1	4.3	110	90	19	13	59		
LEACHVILLE																								
1	SLM	41	35	1.11	46	4.6	85	24	6.6	2.4	1	3	4.6	109	37	6.2	4.4	80	70	28	19	59		
VICTORIA																								
1	SLM	41	36	1.14	47	4.8	93	23	5.1	3.4	1	3	4.8	110	36	5.5	4.0	110	90	18	15	61		
WILSON																								
1	SLM	41	34	1.10	46	4.6	88	24	6.7	2.9	1	3	4.0	118	36	6.3	4.6	110	80	15	11	64		
2	SLM LT SP	42	35	1.14	46	4.5	86	24	6.6	3.1	3	4	4.5	116	40	6.5	5.1	100	80	20	15	70		
MISSISSIPPI																								
CLARKSDALE																								
1	SLM LT SP	42	36	1.13	47	4.8	87	23	5.7	6.4	3	3	5.9	112	37	6.2	4.4	90	70	29	23	60		

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Name & Code	Style	32s In	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential	
					2.5% span	Unif.		Zero Gage	1/8" Gage			Mpsi	G/tex		No	No	Lbs	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
SOUTH CENTRAL AREA-- (Continued)																								
MISSISSIPPI-- (Continued)																								
STONEVILLE 731N																								
GLENDORA	1 LM	51	36	1.13	47	5.2	92	23	5.4	4.6	3	2	6.4	100 PERCENT	110	36	5.5	3.7	100	80	25	17	55	
DELTAPINE 16																								
GREENVILLE	1 SLM PLUS	40	36	1.17	47	4.1	88	25	6.8	4.2	0	2	4.7	100 PERCENT	123	42	6.5	5.2	90	70	17	15	72	
DELTAPINE 61																								
GUNNISON	2 SLM	41	35	1.13	47	4.5	88	25	6.3	2.9	2	2	3.9	100 PERCENT	119	41	6.6	5.0	90	70	28	21	61	
DELTAPINE 16																								
HOLLANDALE	1 SLM	41	36	1.18	46	4.2	86	24	6.3	4.2	2	2	5.3	100 PERCENT	119	42	6.1	4.9	90	70	30	19	72	
STONEVILLE 213																								
INDIANOLA	1 SLM	41	35	1.11	47	4.6	89	25	5.7	4.2	2	3	5.9	100 PERCENT	114	37	6.0	4.5	100	70	18	13	62	
STONEVILLE 825																								
INDIANOLA	1 LM PLUS	50	35	1.11	46	4.3	94	24	4.9	4.8	1	2	7.2	100 PERCENT	108	36	5.5	4.2	90	70	25	21	56	
STONEVILLE 213																								
MORGAN CITY	1 SLM	41	35	1.13	45	4.7	83	22	6.0	3.0	2	3	6.0	100 PERCENT	104	35	6.1	4.6	90	70	18	14	55	
STONEVILLE 256																								
TRIBBETT	1 LM PLUS	50	36	1.15	45	4.3	97	23	4.7	4.0	1	2	6.4	100 PERCENT	119	41	5.4	4.1	90	80	19	16	63	
AUBURN M																								
MISSOURI	SENATH	42	34	1.08	45	3.6	81	22	6.1	3.8	2	4	6.4	100 PERCENT	100	32	6.3	4.5	90	70	41	33	52	
DELTAPINE 61																								
SENATH	1 SLM	41	35	1.13	46	4.3	85	23	6.2	2.7	1	3	5.1	76 PERCENT	115	38	6.4	4.9	90	60	36	27	64	
DELTAPINE 16																								
TENNESSEE	BRACEN	41	34	1.08	46	3.9	87	24	6.7	2.4	1	3	4.8	70 PERCENT	114	38	6.5	5.0	100	70	16	13	60	

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns													
No	Grade Name & Code	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste	Strength			Elongation			Appearance Index			Imprfct'ns			Spin. Potent- tial
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Pct	Gr	Yel		Lbs	Lbs	Pct	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
SOUTHWEST AREA																											
SOUTH TEXAS																											
GANADO																											
2	MID	31	34	1.09	46	4.6	84	23	6.4	3.9	0	3	4.8	90 PERCENT	110	37	6.0	4.4	90	70	20	16	61				
SEBASTIAN																											
3	SLM	41	33	1.06	46	4.4	83	22	6.5	2.7	1	4	4.9	97 PERCENT	110	37	6.6	4.9	100	70	14	11	66				
CENTRAL TEXAS																											
BATESVILLE																											
2	MID	31	35	1.09	45	4.0	83	23	6.3	2.4	0	4	5.2	90 PERCENT	113	38	6.2	4.7	90	70	14	12	64				
3	MID	31	35	1.09	46	4.2	85	22	5.8	2.5	0	4	4.7		110	36	5.9	4.4	90	70	20	16	59				
CROCKETT																											
1	SLM	41	34	1.03	46	4.9	92	22	5.3	3.4	3	3	6.2	75 PERCENT	83	23	4.4	3.8	90	80	23	20	25				
GRANDVIEW																											
1	MID	31	30	0.98	45	4.0	92	22	5.6	3.2	0	3	4.9	90 PERCENT	87	26	5.3	3.9	90	60	27	23	36				
NAVASOTA																											
1	MID	31	35	1.06	46	4.6	93	25	6.3	2.2	1	3	4.2	100 PERCENT	110	35	6.0	4.4	90	70	10	9	58				
2	SLM	41	35	1.14	47	4.3	89	24	6.2	2.2	1	3	4.4		115	39	6.2	4.6	100	90	21	16	66				

1/ End breakage too high to spin 50s yarn. 36s yarn spun and strength adjusted to equivalent of 50s.

